Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) An active pixel sensor array sampling system, comprising:

at least one video circuit that generates a video voltage from each one of a group of pixels; and

at least one reset circuit that generates a reset voltage associated with each one of the pixels in the group of pixels, wherein one or more of the video or reset circuits include:

(1) an amplifier having an input and an output;

(2) a column input having one of the video or reset voltage thereon; and

(3) a single capacitor such that in a ~~first~~ sampling -mode the single capacitor is coupled between the column input and the input of the amplifier, exclusive of any other capacitor coupled to the input of the amplifier, and in a ~~second~~ readout -mode the single capacitor is coupled between the input of the amplifier and the output of the amplifier.

2. (Previously Presented) The system of claim 1 wherein the amplifier includes a single ended common source amplifier.

3. (Currently Amended) The system of claim 1 wherein the single capacitor holds the one of the video or reset voltage.

4. (Currently Amended) The system of claim 3 wherein the ~~the~~ one or more of the video and reset circuits further include switches that place the single capacitor across the input and the output of the amplifier.

5. (Original) The system of claim 1 wherein the pixels are arranged in columns and rows, the at least one video circuit comprises a plurality of video amplifiers, each video amplifier being associated with a respective column of pixels, and wherein the at least one reset circuit comprises a plurality of reset amplifiers, each reset amplifier being associated with one of the video amplifiers.

6. (Currently Amended) An active pixel sensor array sampling system comprising:

a video circuit that generates a video voltage from each one of a group of pixels; and

a reset circuit associated with the video circuit that generates a reset voltage associated with each one of the pixels in the group of pixels;

wherein the video and reset circuits each include (1) an amplifier having an input and an output, (2) a column input having one of the video or reset voltage thereon, and (3) a single capacitor selectively coupled between: (i) the column input and the input of the respective

amplifier and (ii) the input of the respective amplifier and the output of the respective amplifier, when the single capacitor is coupled between the column input and the input of the respective amplifier, the single capacitor is coupled to the input of the respective amplifier exclusive of any other capacitor coupled thereto.

7. (Previously Presented) The system of claim 6 wherein the amplifier of each of the video and reset circuits comprises a single ended common source amplifier.

8. (Currently Amended) The system of claim 6 wherein the single capacitors of the video and reset circuits hold the video voltage and the reset voltage, respectively.

9. (Currently Amended) The system of claim 6 wherein the video and reset circuits include

a plurality of switches such that the plurality of switches are configured to place a respective single capacitor across the input and the output of the ~~associated~~respective amplifier.

10. (Original) The system of claim 6 wherein the pixels are arranged in columns and rows and wherein the group of pixels is a column of pixels.

11. (Currently Amended) A video amplifier for use in sampling an active pixel sensor array, the video amplifier comprising:

a video circuit having:

(1) an amplifier with an input and an output,

(2) a column input having a video voltage thereon, and

(3) a single capacitor such that (i) in a ~~first~~ sampling mode the capacitor is coupled between the column input and the input of the amplifier and (ii) in a ~~second~~ readout mode the capacitor is coupled between the input of the amplifier and the output of the amplifier, when the single capacitor is coupled between the column input and the input of the amplifier, the single capacitor is coupled to the input of the respective amplifier exclusive of any other capacitor coupled thereto.

12. (Currently Amended) The video amplifier of claim 11, wherein the video circuit includes a closed loop sample and hold circuit, the amplifier ~~being~~ of the video circuit including a single ended common source amplifier.

13. (Canceled)

14. (Currently Amended) The video amplifier of claim 12, wherein the closed loop sample and hold circuit includes a plurality of switches configured to place the single capacitor across the input and output of the amplifier of the video circuit.

15. (Currently Amended) An integrated circuit including a video amplifier for use in sampling an active pixel sensor array, the video amplifier comprising:

a video and reset circuit having:

(1) an amplifier with an input and an output,

(2) a column input having a video voltage thereon, and

(3) a single capacitor for holding the video voltage such that the capacitor is selectively switched between (i) the column input and the input of the amplifier in a sampling mode and (ii) the input of the amplifier and the output of the amplifier to transfer the video voltage in a readout mode, when the single capacitor is coupled between the column input and the input of the amplifier, the single capacitor is coupled to the input of the respective amplifier exclusive of any other capacitor coupled thereto.

16. (Previously Presented) The integrated circuit of claim 15, wherein the amplifier of the video and reset circuit comprises a single ended common source amplifier.

17. (Canceled)

18. (Currently Amended) The integrated circuit of claim 15, wherein the video and reset circuit includes a plurality of switches configured to place the single capacitor either across the input and the output of the amplifier of the video and reset circuit in ~~a first~~ the readout mode or to place the capacitor across the column input and the input of the amplifier of the video and reset circuit in ~~a second~~the sampling mode.

19. (Original) The integrated circuit of claim 15 wherein the integrated circuit is a CMOS integrated circuit.

20. (Currently Amended) The video amplifier of claim 11, wherein the video circuit includes a video sample and hold circuit and the video sample and hold circuit includes ~~a~~the single capacitor.

21. (Currently Amended) The video amplifier of claim 11, further comprising:

a reset circuit having:

(1) a further amplifier with a further input and a further output; and

(2) a further single capacitor for holding a reset voltage thereon, the further single capacitor being coupled between the column input and the input of the further amplifier when the single capacitor of the video circuit is in the ~~second~~sampling mode and being coupled between the input and output of the further amplifier when the single capacitor of the video circuit is in the ~~first~~readout mode.

22. (New) The system of claim 1, further comprising:

a switch connecting the single capacitor to the column input in the sampling mode and disconnecting the single capacitor from the column input in the readout mode.

23. (New) The video amplifier of claim 11, further comprising:

a switch connecting the single capacitor to the column input in the sampling mode and disconnecting the single capacitor from the column input in the readout mode.